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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/803,963	03/19/2004	Takuya Yano	12065-0010	6490

22902 7590 06/27/2006

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EXAMINER

WARTALOWICZ, PAUL A

ART UNIT	PAPER NUMBER
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1754

DATE MAILED: 06/27/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/803,963

Applicant(s)

YANO ET AL.

Examiner

Paul A. Wartalowicz

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 19 March 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-15 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-15 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 19 March 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
- 1) ☒ Certified copies of the priority documents have been received.
 - 2) ☐ Certified copies of the priority documents have been received in Application No. _____.
 - 3) ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 07/21/04.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

Double Patenting

The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. A nonstatutory obviousness-type double patenting rejection is appropriate where the conflicting claims are not identical, but at least one examined application claim is not patentably distinct from the reference claim(s) because the examined application claim is either anticipated by, or would have been obvious over, the reference claim(s). See, e.g., *In re Berg*, 140 F.3d 1428, 46 USPQ2d 1226 (Fed. Cir. 1998); *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) or 1.321(d) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent either is shown to be commonly owned with this application, or claims an invention made as a result of activities undertaken within the scope of a joint research agreement.

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

Claim 1 of this application conflict with claim 1 of Application No. 10/809709. 37 CFR 1.78(b) provides that when two or more applications filed by the same applicant contain conflicting claims, elimination of such claims from all but one application may be required in the absence of good and sufficient reason for their retention during pendency in more than one application. Applicant is required to either cancel the conflicting claims from all but one application or maintain a clear line of demarcation between the applications. See MPEP § 822.

Claim 1 is provisionally rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claim 1 of copending Application No. 10/809709 in view of Suga et al. (U.S. 6395675).

Application No. 10/809709 teaches a method of producing a perovskite complex oxide wherein, at the time of producing a perovskite complex oxide phase by heat treating a precursor substance that is a powdery starting material containing at least one rare earth element R and at least one transition metal element T, there is used as the precursor substance an amorphous substance containing the R and T components (claim 1). Application No. 10/809709 fails to teach that the noble metal element is incorporated in the amorphous substance.

Suga et al., however, teach a catalyst comprising a noble metal element and a double oxide (col. 1, line 54-col. 2, line 4) wherein it is known to provide a catalyst comprising a noble element metal with a double oxide for the purpose of improving the NO_x adsorption capability of the catalyst (col. 2, lines 26-29).

Therefore, it would have been obvious to one of ordinary skill at the time applicant's invention was made to provide wherein it is known to provide a catalyst comprising a noble element metal and a double oxide in Application No. 10/809709 in order to improve the NO_x adsorption capability of the catalyst (col. 2, lines 26-29) as taught by Suga et al.

This is a provisional obviousness-type double patenting rejection.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1, 2, 5-9, 12, and 15 are rejected under 35 U.S.C. 102(b) as being anticipated by Suga et al. (U.S. 6395675).

Suga et al. teach a process for making a catalyst of a mixed oxide containing a noble metal element (perovskite complex oxide, col. 1, line 54-col. 2, line 5) wherein an aqueous slurry comprising powder comprising a mixed oxide (amorphous substance) of a transition element and a rare earth element (this disclosure meets the limitation of a precursor substance as an amorphous substance, col. 5, lines 10-15, 48-52) and a powder comprising a noble element (the first powder comprises a noble metal element, col. 5, lines 48-51; col. 1, lines 55-58) is mixed, wherein the amorphous substance is a precipitation product produced by reacting an aqueous solution of salts of the rare earth metal and the transition metal and a precipitant (ammonium hydroxide is the precipitant, col. 5, lines 15-22), and then heating the aqueous slurry to a temperature of 400°-900°C (some amount of drying is inherently taught by the step of heating at a temperature, col. 5, lines 52-55).

As to the limitation that the amorphous substance is a precipitation product is obtained by the claimed steps, it appears that the instantly claimed product by process is the same as that which is claimed (precipitation product). When the examiner has

found a substantially similar product as in the applied prior art, the burden of proof is shifted to the applicant to establish that their product is patentably distinct and not the examiner to show the same process as making. *In re Brown*. 173 USPQ 685 and *In re Fessman*, 180 USPQ 324.

As the limitations wherein the noble metal element-containing perovskite complex oxide exhibits certain properties, the prior art of record teaches a substantially similar process of making to that of the claimed invention such that the properties of the product made by said process of the prior art of record are substantially similar to that of the claimed invention.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

Claims 3, 4, 10, 11, 13, and 14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Suga et al. (U.S. 6395675) in view of Ishii et al. (U.S. 5503815).

Suga et al. teach a process for making a catalyst of a mixed oxide containing a noble metal element as described above in claim 1. Suga et al. fail to teach the slurry is adjusted to a pH of 6 or higher in co-presenting nitrate ions and ammonium ions therein.

Ishii et al., however, teach a process for making a lanthanum manganite powder (lanthanum manganite is a perovskite, col. 1, lines 9-12, col. 2, line 65-col. 3, line 4) wherein salts of lanthanum and manganese are dissolved in nitric acid at room temperature (col. 3, lines 41-46; col. 4, lines 48-52) wherein ammonia is added for the purpose of adjusting the solution to a pH of 7.2 (col. 4, lines 50-55) for a chemically similar process of making a perovskite.

Therefore, it would have been obvious to one of ordinary skill in the art at the time applicant's invention was made to provide wherein salts of lanthanum and manganese are dissolved in nitric acid at room temperature (col. 3, lines 41-46; col. 4, lines 48-52) wherein ammonia is added in Suga et al. in order to adjust the solution to a pH of 7.2 (col. 4, lines 50-55) as taught by Ishii et al. for a chemically similar process of making a perovskite.

This combined teaching meets the limitation of co-presenting nitrate and ammonium ions in the slurry.

As to the limitation of the mole ratio of the total amount of nitrate ions and ammonium ions to the total amount of rare earth element and transition metal element in the amorphous substance is greater than 0.6, it would be obvious based on the

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reasoned explanation that enough nitric acid would be used to dissolve the lanthanide and manganese salts and enough ammonia would be added in order to adjust the solution to a pH of above 6.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to optimize the amount of nitrate and ammonium ions present in the slurry, since it has been held that discovering an optimum value or a result effective variable involved only routine skill in the art. *In re Boesch*, 617 F.2nd 272, 205 USPQ 215 (CCPA 1980). The artisan would have been motivated to optimize the amount of nitrate and ammonium ions present in the slurry by the reasoned explanation that an optimum amount of nitrate and ammonium ions present in the slurry are necessary to dissolve salts of lanthanum and manganese (nitric acid disassociates into nitrate ions in the slurry) and to adjust the pH of the solution (ammonia disassociates into ammonium ions in the slurry), respectively.

Claims 3, 4, 6, and 12-15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Suga et al. (U.S. 6395675) in view of Stamires et al. (U.S. 2002/0092812).

Suga et al. teach a process for making a catalyst of a mixed oxide containing a noble metal element as described above in claim 1. Suga et al. does not explicitly teach wherein a precursor substance is an amorphous substance and that the noble element is incorporated in the amorphous substance.

As to the limitation that the amorphous substance is a precipitation product obtained by the claimed steps, it appears that the instantly claimed product by process is the same as that which is claimed (precipitation product). When the examiner has found a substantially similar product as in the applied prior art, the burden of proof is shifted to the applicant to establish that their product is patentably distinct and not the examiner to show the same process as making. *In re Brown*. 173 USPQ 685 and *In re Fessman*, 180 USPQ 324.

As the limitations wherein the noble metal element-containing perovskite complex oxide exhibits certain properties, the prior art of record teaches a substantially similar process of making to that of the claimed invention such that the properties of the product made by said process of the prior art of record are substantially similar to that of the claimed invention.

If Suga et al. fail to teach the limitation of wherein a precursor substance is an amorphous substance and that the noble element is incorporated in the amorphous substance, Stamires et al. teach a process for making a crystalline anionic clay comprising iron and lanthanum (paragraph 0003; paragraph 0025, lines 1-5) wherein it is known to additive such as a noble metal element at room (paragraph 0055, lines 1-8) in the preparation steps (the preparation steps meet the limitation of a precursor solution, paragraph 0055, lines 10-14) for the purpose of controlling the distribution of the additives in the shaped bodies.

Therefore, it would have been obvious to one of ordinary skill in the art at the time applicant's invention was made to provide wherein it is known to additive such as a

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noble metal element (paragraph 0055, lines 1-8) in the precursor solution (paragraph 0055, lines 10-14) in Suga et al. in order to control the distribution of the additives in the shaped bodies as taught by Stamires et al.

As to the limitation of the slurry is adjusted to a pH of 6 or higher in co-presenting nitrate ions and ammonium ions thereof, Suga et al. teach that the nitrates of the rare earth element and transition element are dissolved into water and ammonium is added to form a precipitate necessitating that ammonium and nitrate ions are co-present in the slurry. The addition of the ammonium to the slurry would raise the pH such that the pH of 6 or higher is inherently taught. If the pH is not inherently taught, it would be obvious based on the pH would be very close to the claimed range. The prior art range is so close that one skilled in the art would have expected it to have the same properties.

Titanium Metals Corp. v. Banner, 227 USPQ 773.

As to the limitation of the mole ratio of the total amount of nitrate ions and ammonium ions to the total amount of rare earth element and transition metal element in the amorphous substance is greater than 0.6, Suga et al. teach that the nitrates of a rare earth element and a transition element are dissolved into water and ammonium is added to form a precipitate necessitating that ammonium and nitrate ions are co-present in the slurry such that an optimum amount of nitrate and ammonium ions would be present in the slurry.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to optimize the amount of nitrate and ammonium ions that would be present in the slurry, since it has been held that discovering an optimum value or a

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result effective variable involved only routine skill in the art. In re Boesch, 617 F.2nd 272, 205 USPQ 215 (CCPA 1980). The artisan would have been motivated to optimize the amount of nitrate and ammonium ions that would be present in the slurry by the reasoned explanation that the nitrates of a rare earth element and a transition element are dissolved into water and ammonium is added to form a precipitate necessitating that ammonium and nitrate ions are co-present in the slurry such that an optimum amount of nitrate and ammonium ions would be present in the slurry.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Paul A. Wartalowicz whose telephone number is (571) 272-5957. The examiner can normally be reached on 8:30-6 M-Th and 8:30-5 on Alternate Fridays.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Stanley Silverman can be reached on (571) 272-1358. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.



Paul Wartalowicz
June 20, 2006


COLLEEN P. COOKE
PRIMARY EXAMINER